

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (Currently amended) A system comprising:
a CPU; and
RAM separate from main memory and accessible to said CPU for use as a stack during BIOS processing, said RAM accessible for said use at a range of address space beyond a main memory range.
2. (Original) The system of claim 1, further comprising:
an address decoder coupled between said CPU and said RAM.
3. (Original) The system of claim 1, further comprising:
computer-executable instructions to perform said BIOS processing, said instructions including an instruction to program a stack pointer in said CPU to point to said RAM.
4. (Original) The system of claim 3, said instructions further including at least one instruction to access a stack pointed to by said stack pointer.
5. (Original) The system of claim 3, said instructions further including at least one instruction calling a subroutine.
6. (Original) The system of claim 2, further comprising a multiplexer coupled between said address decoder and said RAM, to select between use of said RAM as a stack during BIOS processing and a normal usage of said RAM.
7. (Original) The system of claim 1, further comprising:

computer-executable instructions to perform said BIOS processing, said instructions including an instruction setting an operational mode of said CPU to access said RAM.

8. (Currently amended) ~~The system of claim 1,~~

A system comprising:

a CPU; and

RAM separate from main memory and accessible to said CPU for use as a stack during BIOS processing;

wherein said RAM is concurrently shared by said BIOS processing and at least one other function of said system.

9. (Currently amended) A method comprising:

mapping a range of address space in a computer system to RAM separate from main memory, said range of address space being beyond a main memory range; and

executing a BIOS program in said computer system which uses space in said RAM for a stack.

10. (Original) The method of claim 9, further comprising:

executing an instruction in said BIOS program to program a stack pointer in a CPU of said computer system to point to said stack.

11. (Original) The method of claim 9, further comprising:

executing at least one instruction in said BIOS program to access said stack.

12. (Original) The method of claim 9, further comprising:

calling at least one subroutine from said BIOS program.

13. (Canceled)

14. (Currently amended) ~~The method of claim 9, further comprising:~~

A method comprising:
mapping a range of address space in a computer system to RAM separate from
main memory;
executing a BIOS program in said computer system which uses space in said
RAM for a stack; and
performing a function of said computer system which uses said RAM
concurrently with said BIOS program.

15. (Currently amended) A system comprising:

a CPU;
RAM separate from main memory and accessible to said CPU for use as a stack
during BIOS processing;
an address decoder coupled between said CPU and said RAM, configured to
decode addresses asserted by said CPU addressing said RAM, said addresses being in
a range of address space beyond a main memory range; and
computer-executable instructions to perform said BIOS processing, said
instructions including an instruction to program a stack pointer in said CPU to point to
said RAM.

16. (Original) The system of claim 15, said instructions further including at least one
instruction to access a stack pointed to by said stack pointer.

17. (Original) The system of claim 15, wherein said RAM is divided into a first portion
and a second portion, and only said first portion is accessible via said address decoder.

18. (Currently amended) A personal computer comprising:

a CPU;
a memory controller coupled to said CPU and main memory;
an I/O controller coupled to said memory controller and comprising:
RAM separate from said main memory;

an address decoder configured to decode addresses asserted by said CPU addressing said RAM, said addresses in a range of address space beyond a main memory range;

a multiplexer coupled between said address decoder and configured to enable access to said RAM by either said address decoder or at least one other functional logic block of said personal computer;

said personal computer further comprising a BIOS program including an instruction to program a stack pointer in said CPU to point to said RAM.

19. (Original) The personal computer system of claim 18, said BIOS program further including at least one instruction to access a stack pointed to by said stack pointer.

20. (Currently amended) A computer-usable medium storing a BIOS program, said BIOS program including computer-executable instructions which when executed perform a process comprising:

programming a stack pointer of a CPU in a computer system to point to a stack in RAM separate from main memory; and

accessing said stack in said separate RAM, said stack accessible at a range of address space beyond a main memory range.

21. (Currently amended) The computer-usable medium of claim 22 20, said process further comprising:

setting an operational mode for causing said separate RAM to be accessed by said BIOS program; and

calling at least one subroutine.